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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,965	07/29/2005	Mircea Gradu	TIMK 8443W1	6919

1688 7590 11/07/2007
POLSTER, LIEDER, WOODRUFF & LUCCHESI
12412 POWERSCOURT DRIVE SUITE 200
ST. LOUIS, MO 63131-3615

EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

MAIL DATE	DELIVERY MODE
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11/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,965

Applicant(s)

GRADU, MIRCEA

Examiner

David D. Le

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 and 17-20 is/are allowed.
- 6) ☒ Claim(s) 16 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the second Office action on the merits of Application No. 10/522,965, filed on 29 July 2005. Claims 1-21 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 01/31/05
 - Declaration and Power of Attorney, received on 07/29/05
 - Replacement Drawing, received on 08/30/07

Drawings

3. The replacement drawings were received on 30 August 2007. These drawings are approved.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 16 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,247,443 to Gilliam.**

Claim 16:

Gilliam (i.e., Figs. 1-2; column 2, line 49 – column 4, line 40) discloses a drive train comprising:

- A power unit (i.e., Fig. 1, element 12);
- Primary wheels (i.e., Fig. 1, elements 15a);
- Secondary wheels (i.e., Fig. 1, elements 19a);
- A torque coupling (i.e., Fig. 1, being the combination of elements 10, 11, 13-20) connected between the power unit and the secondary wheels for apportioning torque between the primary and secondary wheels;
- Wherein the torque coupling includes:
 - A clutch (i.e., Fig. 2, element 29);
 - A locking mechanism (i.e., Fig. 2, element 42);
 - A planetary set (i.e., Fig. 2, element 28) connected such that a locking mechanical path (i.e., Fig. 2, being combination of elements 25, 31, 32, 34, 33, 35, 38 and 26) and a clutch path (i.e., Fig. 2) exist through which torque is transferred between the power unit (12) and the secondary wheels, with the amount of torque transferred through the clutch path in relation to the amount transferred through the locking mechanical path being variable by the clutch, whereby the apportionment of torque between the primary and secondary wheels is controlled by the clutch and the locking mechanism.

Claim 21:

Gilliam (i.e., Figs. 1-2; column 2, line 49 – column 4, line 40) discloses a drive train comprising:

- An input shaft (i.e., Fig. 2, element 25);
- A source of torque (i.e., Fig. 1, element 12);
- An output shaft (i.e., Fig. 2, element 26);
- Wherein the input shaft (25) and the output shaft (26) have a common axis of rotation (i.e., Fig. 2);
- A means for amplifying an angular velocity of the output shaft (i.e., Fig. 2, element 42);
- A means for providing a clutch control responsive to a difference between the amplified angular velocity of the output shaft and an angular velocity of the input shaft (i.e., Fig. 2, element 24);
- A means for selectively transferring torque between the input shaft and the output shaft responsive to the provided clutch control (i.e., Fig. 2, element 29); and
- A means for mechanical transferring torque between the input shaft and the output shaft independent from the means for selectively transferring (i.e., Fig. 2, element 28).

Allowable Subject Matter

6. Claims 1-15 and 17-20 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 16 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

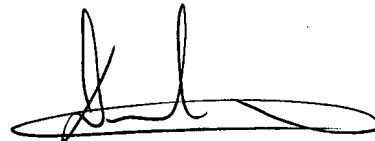
- Hayakawa et al. (U. S. Patent No. 4,503,927) teaches a hydraulic control system for a four-wheel drive transfer mechanism, as shown in Figs. 1-4.
- Bowen (U. S. Patent No. 6,679,799) teaches a hybrid transfer case, as shown in Fig. 2.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'David D. Le', with a long horizontal flourish extending to the right.

David D. Le
Primary Examiner
Art Unit 3681
10/31/2007

ddl